## NOTES OF A COLLECTING TRIP TO DEPARTURE BAY, VANCOUVER ISLAND.

## BY GEORGE W. TAYLOR.

The account given by Mr. Wood in the October number of THE NAUTHUS of his collecting trip to Monterey Bay tempts me to put on record an experience of my own which goes to prove that our Northern waters are quite as rich in molluscan life as those of the sunnier South.

Departure Bay is a small bay on the east coast of Vancouver Island, about 75 miles north of Victoria. It is shut in by its own shores on the north, west, and south, and is protected from the open sea on the east by a series of small islands. Consequently, the water, at most seasons of the year, is smooth, and as the depth ranges from 10 to 50 fathoms, and the bottom is varied, being sandy in some places and rocky in others, the bay is a capital place for a dredging expedition.

In August, 1888, through the kindness of Mr. S. M. Robins, the managing director of the New Vancouver Coal Company, I was able to spend four days in dredging from a small steam launch belonging to the Colliery Company. Much time was wasted on this occasion in searching for suitable ground, but the result of the four days' work was by no means disappointing, as I took home with me more than five thousand (5,000) specimens of one hundred and ten different species. One of them, since named in manuscript by Mr. Whiteaves as Pecten Vancouverensis, was new to science, and several others were additions to our Vancouver lists.

In July of the present year, I spent three and one-half days in the same locality in company with Professor Macown, the well-known Canadian botanist and naturalist. We were determined, if possible, to beat the previous record, and therefore worked very industriously. We spent two and one-half days collecting on shore between tide marks, and one day was devoted to dredging over the ground prospected in 1888.

In the shore collecting my own captures amounted to nearly 2,500 shells of 61 species. In the dredging expedition our joint bag reached the grand total of over seven thousand (7,000) specimens of 88 species. This very satisfactory result was obtained from an ordi-

nary open sailing boat, with a crew of three men and a single homemade dredge. I should mention that 13 species were taken both between tides and by dredging, so that the actual number of different species taken in the three and one-half days was 136.

In shore collecting, no attempt was made to collect the very common shells in quantity, or the numbers might have been swelled indefinitely. In fact, I was looking more especially for Chitons, of which I took seven species (183 specimens), and the smaller shells, such as Volutella pyriformis Cpr. (40 specimens), and species of Odostomia, which occurs commonly under rocks at low water. I took also on this occasion a very fine series of Terebratella transversa Sby., which was found literally in thousands attached to the rocks on the south side of the bay.

Fine series of several *Macomas* were dug in the sand, and a few specimens of the curious *Lepton rude* Whiteaves were found attached (as is their habit) to the central segments of specimens of *Gebia pugetensis*, which we dug out of the muddy shores.

When dredging, everything that came up was preserved, and the finer sand and mud boxed, and afterward dried and examined at home.

Of the Pelecypoda dredged, by far the commonest specimen was Acila Lyalli, of which at least a couple of thousand specimens were taken. Another common bivalve was Cryptodon sericatus Cpr., about 300 specimens. Venericardia borealis Conrad, Nucula tenuis Mont., and Lucina tenuisculpta Cpr., came next in order, about 100 of each being taken.

Of rarer shells may be mentioned, Pecten Vancouverensis Whiteaves and hastatus Sby., Amusium caurinum Gould, Modiolaria lavigata Gray and nigra Gray, Crenella decussata Mont., Cardinm blandum Gould, Fulvia modesta Ad. and Rue., Cryptodon flexuosus Mont., Astarte Esquimalti Baird, and undata Gould, Psephis Lordi Baird, Clementia subdiaphana Cpr., Venus Kennerleyi Reeve, Macoma yoldiformis Cpr., Caspidaria pectinata Cpr., Kennerlia filosa Cpr., etc.

Of the Gasteropoda the most abundant were, Nassa mendica Gould, Nitidella Gouldii Cpr., Olivella baetica Cpr., Mesalia veticulata Mighels, and the deep-water variety of Margarita pupilla Gould, of each of which more than one hundred specimens were obtained.

Of rarer shells the following is a partial list: Drillia incisa Cpr., and cancellata Cpr., Mangilia sculpturata Dall, Cancellaria circumcineta Dall, Velutina laevigata Linn., Turbonilla torquata Gould,

chocolata Cpr., and Lordi Smith, Scala indianorum Cpr., Solariella peramabilis Cpr., and varicosa Mighels, Paneturella galeata Gould, encullata Gould, and Cooperi Cpr. (all living), Cryptobranchia concentrica Midd., Ischnochiton interstinctus Gould, and cancellatus Sby., Placiphorella sinuata Cpr., Utriculus incultus Gould, and Rictaxis punctocalata Cpr., this last being new to our Vancouver list.

I have not attempted to give a complete list, as such would take up too much of The Nautilus's valuable space, and would, moreover, be of little interest; but I think I have written enough to show how very abundant the Mollusca are in our seas, and how much may be accomplished in even a single day's collecting if one knows exactly how and where to look.

## A REPLY TO "SOME (RESPONSIVE) REMARKS RELATIVE TO CYPRÆA GREEGORI, FORD."

## BY EDGAR A. SMITH.

It is flattering to see that my remarks on Mr. Ford's so-called species of Cypraa have been deemed worthy of such lengthy con-It were easy to take Mr. Ford's paragraphs seriatim, to make sharp replies, and to confute them, but I value the pages of THE NAUTILUS too highly to occupy them with matter of that description. I will merely observe, then, that I have carefully reconsidered the subject, and I still am of opinion that Mr. Melvill's meaning is quite evident. It is to be regretted that Mr. Ford did not cut the leaves of the work he was consulting and carefully examine it, for, had he done so, he could not possibly have failed to see to which species Mr. Melvill assigned the var. coloba, and possibly he would have adopted that name. When I suggested that even courtesy directed us to employ Mr. Melvill's name, it occurred to me that possibly some persons might be ignorant of or disregard the friendly custom of adopting as a specific name one already used in a varietal sense by another, and the readers of The Nautilus are now in a position to judge whether my supposition was well-founded.

In conclusion I would point out that it is hardly fair for a writer who is criticising the work of another, unnecessarily to put in inverted commas phrases and words which the general reader might estimate as quotations. The words "state of things," "reminded," "with thanks," do not occur among my observations, and the "bit of presumption" also emanates from Mr. Ford.